Dr. Nathan M. Schiff, Program Chair, introduced the speaker for the evening, Dr. Martha Weiss, Department of Botany, University of Maryland, whose talk was entitled "Color Learning in Butterflies."

Two guests were present, Roxanne Algart, Department of Entomology, University of Massachusetts, and Rick Turcotte, Bee Research Laboratory, USDA, Beltsville.

Refreshments were provided by Dr. William E. Bickley.

The Meeting was adjourned at 9:24 pm. Darlene D. Judd, *Recording Secretary* 

1002nd Regular Meeting-April 6, 1995

The 1002nd Regular Meeting of the Entomological Society of Washington was called to order by President John W. Neal, Jr. in the Naturalists' Center of the National Museum of Natural History at 8:04 pm on April 6, 1995. The meeting was attended by 21 members and five guests. Minutes for the 1001st meeting were read by Darlene D. Judd, and subsequently accepted.

Reports of officers and committees were read. Membership chair M. Alma Solis announced that there were no new members.

President-elect Ralph P. Eckerlin announced that the Chesapeake Association of Professional Entomologists were interested in attending the Spring Banquet. It was reaffirmed that the Spring Banquet will be held Wednesday, 31 May 1995, at the Associates Court in the National Museum of Natural History. The speaker will be Dr. Gary Umphrey, University of Western Ontario, who will speak on "Analyzing the Literature of Insect Fiction: Themes, Dreams, Schemes and Screams." The Master/Mistress of ceremonies will be Dr. Manya B. Stoetzel.

President Neal announced that the executive committee decided unanimously to elect Drs. J. Richard Gorham and Frank W. Meade as emeritus members. It was also decided that a committee would be set up to examine the Society's by-laws dealing with such items as life membership fees.

A call was made for new business. Dr. Manya B. Stoetzel announced that Dr. Robert D. Gordon of the Systematic Entomology Laboratory would be retiring at the end of April.

Notes, exhibitions, and specimens were called for. Warren E. Steiner exhibited some live specimens of the iron clad beetles, *Zopherus holdemani* (Zopheridae), that were recently collected in Texas.

Dr. Nathan Schiff introduced the speaker for the evening, Dr. Gary Miller, USDA-ARS Systematic Entomology Laboratory, Beltsville, who gave us an enlightening presentation on "Historical Natural History: A Study of Insects in the Civil War." Dr. Miller has researched various aspects of the involvement of insects in the war ranging from the number of deaths attributed to insect-borne disease, well-known entomologists who were enlisted on either side of the conflict (although there did appear to be a preponderance of northerners), games played by the infantry using insects, and the plagues of flies, lice, and fleas that caused more than one member of the audience to scratch in sympathy. Roughly 380,000 soldiers died from disease during the war; far more than the 200,000 that actually died in battle. Over 25% of the union soldiers contracted "simple intermittent fever" or malaria. At least one anti-malarial remedy offered to southern troops included 30 parts dogwood bark, 30 parts poplar bark, and 40 parts willow bark, which was served with whiskey at 45 degree strength. The willow bark that contains salicylic acid may have offered some relief, but it was probably the whiskey that helped to raise the spirits of the soldiers.

Four guests were presented to the members: Mellissa and Brian Miller, Denise Whitman of the Department of Invertebrates, Smithsonian Institution; Kim Nesci, Department of Entomology, University of Maryland; and Ian Lowe, Fredrickburg and Sotsylvania National Military Park.

Refreshments were provided by Dr. John W. Neal, Jr.

The meeting adjourned at 9:16 pm.

John M. Heraty for Darlene D. Judd,

Recording Secretary

1003rd Regular Meeting—May 4, 1995

The 1003rd Regular Meeting of the Entomological Society of Washington was called to order by President John W. Neal, Jr. at the National Visitor Center (Beltsville) at 8:05 pm on May 4, 1995. The meeting was attended by 22 members and 19 guests. Minutes for the 1002nd meeting were read by Dr. John M. Heraty for Recording Secretary Darlene D. Judd, and subsequently accepted.

Reports of officers and committees were called for. Membership chair M. Alma Solis announced that there were two new members: Stephen Gamari (University of Illinois, Urbana, IL) and Eric L. Johnson (Aphis-PPQ, Seattle, WA).

President-elect Ralph P. Eckerlin announced the menu of the Spring Banquet was finalized. The banquet date and speaker were reaffirmed.

President Neal announced that it was decided that Dr. Norman E. Woodley and Dr. David Smith would review the Society's by-laws and present their report to the Society in October.

No new business was reported.

Notes, exhibitions, and specimens were called for. Dr. Manya B. Stoetzel made a presentation of some "dark black things" that she identified as conifer-infesting aphids, possibly of the genus *Sinara*. Dr. Nathan M. Schiff commented on the attraction of yellowjackets to aphids on conifers in the fall near the bee research laboratories. Dr. Schiff raised the question about where the meetings would be held next fall. Dr.

Neal commented that they would probably be in the Waldo Schmitt room at the National Museum of Natural History.

Dr. Schiff introduced the speaker for the evening, Dr. James Marden of Pennsylvania State University, who gave a fascinating talk on "Surface Skimming Stoneflies: Testing the Evolutionary Hypotheses of Insect Flight." Dr. Marden has been focusing on the functional morphology of Taeniopterygidae (winter stoneflies). Taeniopterygids are essentially flightless but use their wings to propel them across the water by wing flapping or by raising the wings into a vertical position and using them as sails. Dr. Marden proposed that skimming is a more plausible intermediate step toward developing functional wings for flight than the use of gill flaps for gliding. His work was supported by various experiments on observing skimming behavior, changing parameters of the wings such as length, and characterizing the morphology of wing venation within a phylogenetic perspective to explain the ancestral origin of this behavior. Dr. Marden proposed that the ability to fly may have developed more than once, but the capability for flight may have developed in a surface-skimming ancestor.

Seven guests were presented to the members. Dr. Stoetzel introduced Dr. Curtis Sabrosky and Ms Louise Russell. Ms Russell noted that at age 90 she had been a member of the Society for more than 60 years, many more years than the age of most attending members.

Refreshments were provided by Dr. Manya Stoetzel.

The meeting was adjourned at 9:21 pm. Dr. John M. Heraty for Darlene D. Judd, *Recording Secretary*